

# Notice of Allowability

Application No.

10/715,880

Examiner

Hung C. Le

Applicant(s)

SJOLANDER ET AL.

Art Unit

3725

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/18/03.
2. ☒ The allowed claim(s) is/are 18 and 19.
3. ☒ The drawings filed on 18 November 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 11/18/2003 4/5/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_



DERRIS H. BANKS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700

***Response to Amendment***

The amendment filed on April 15, 2004 has been considered:

Applicant has cancelled claims 1 – 17, 20 and 21.

**REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance:

Prior art failed to disclose or imply:

"integrally bonding a first rigid layer having substantially planar and opposing first and second surfaces to a second rigid layer having substantially planar and opposing third and fourth surfaces, such that the third surface of the second rigid layer contacts the second surfaces of the first rigid layer, and such that a first passageway is formed wherein the first passageway is defined by a groove that runs along the second surface of the first rigid layer and is bounded by the third surface of the second rigid layer, and wherein the first passageway is adapted to flow a liquid sample therethrough, and wherein the first passageway includes a valve seat that has a substantially planar plateau surface wherein the valve seat is integrally connected to the first rigid layer such that the plateau surface is substantially planar to and interposed between the first and second surfaces of the first rigid layer; and

casting a flexible membrane into a first membrane through hole of the second rigid layer such that the flexible membrane has a passageway surface that is adapted to be either (i) substantially coplanar to the second surface of the first

rigid layer when the valve is in an open position, or (ii) bulged with a central portion thereof being substantially coplanar to the plateau surface of the valve seat when the valve is in a closed position.”

The closest piece of prior art (Ivarsson et al, USP 5,313,264, 05/17/1994) discloses:

“An optical biosensor system wherein said plurality of channels are formed in a liquid handling block unit of a solid material selected from the group consisting of plastic, metal, and ceramics, and wherein said liquid handling block unit comprises:

a planar support plate having a second elastomer layer on its upper face;  
a base plate positioned on top of the second elastomer layer including,  
a third elastomer layer positioned on an underside of said base plate,  
a first number of riser ducts which correspond to a number of the corresponding upwardly open channel positions, extend through said base plate, and connect with one end of each of the corresponding upwardly open channel portions, and  
a second number of riser ducts which correspond to the number of corresponding upwardly open channel portions and connect with an opposite end of each of the corresponding upwardly open channel portions;  
a pattern of channels formed in the third elastomer layer including,  
at least one primary volume for a sample liquid, said primary volume having a first exactly determined volume, at least one inlet channel for said sample liquid,

Art Unit: 3725

at least one inlet channel for eluent liquid, and  
at outlet channel for said sample and eluent liquids; and  
a plurality of individually controllable valve means in said planar support plate for directing the liquid flow in said plurality of channels.” (See Col. 21, Lines 28 – 61)

However, prior art of record fails to disclose the claimed subject matter as set forth above.

Therefore, the method for manufacturing the invention per claims 18 (Renumbered to claim 1) and 19 (renumbered to claim 2) herein are being allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung C. Le whose telephone number is 571 -272-8757. The examiner can normally be reached on M-F: 08:00am - 05:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

Art Unit: 3725

supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HCL  
05/04/2005

A handwritten signature in black ink, consisting of a large, stylized 'D' followed by a series of loops and a long horizontal stroke extending to the right.

DERRIS H. BANKS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700